

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

REMARKS

Claim Rejections - 35 USC §103

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kretman et al US 6,497,946 (hereinafter Kretman) in view of Yoshida et al US 6,882,711 (hereinafter Yoshida).

Responsive to the rejection of claims 11 and 12 under 35 U.S.C. 103(a) as being unpatentable over Kretman et al '946 in view of Yoshida et al '711, Applicants hereby traverse this rejection and submit that claims 11 and 12 are novel and unobvious over Kretman et al '946, Yoshida et al '711, or any of the other cited references, taken alone or in combination.

Claim 11, as currently amended, recites in part:

A backlight system ...

light conversion elements are configured **at one side of the diffusion plate and face toward the reflection polarizer to transform the reflected P polarized light** thereabouts to a common light and successively redirect the common light toward the reflection polarizer without substantial involvement of the diffusion plate and the light guide

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

plate ... (Emphasis added)

Applicants submit that such a backlight system as set forth in claim 11 is neither taught, disclosed nor suggested by Kretman et al '946, Yoshida et al '711, or any of the other cited references, taken alone or in combination.

The Examiner admitted that Kretman failed to disclose that the diffusion layer being a plate. Applicants submit that neither Kretman nor Yoshida has taught, suggested or disclosed **"light conversion elements [are] configured at one side of the diffusion plate and face toward the reflection polarizer to transform the reflected P polarized light thereabouts to a common light ..."**, as set forth in claim 11 (Emphasis added).

Addressing this subject matter, the Examiner contended: "Yoshida discloses light conversion elements that are disposed on a surface of the diffusion plate and face towards the reflection polarizer (col. 17 lines 10-21, 53-56) ... this satisfies the limitation of the **'light conversion elements disposed on a surface of the diffusion plate facing towards the reflection polarizer'** since the light scattering particles are formed on an inner surface of the film subsequently facing the reflection polarizer"

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

(page 2 of the current Final Office Action; emphasis added).

Applicants respectfully submit that the amendments Applicants made in the response submitted on Jan. 30, 2006, do not appear to have been given their full and fair weight. Distinct from Yoshida, the specific limitation had been amended as “the light conversion elements [are] configured at one side of the diffusion plate and face toward the reflection polarizer to transform the reflected P polarized light thereabouts to a common light ...”. By all means, Yoshida’s light scattering particles disposed in a diffusion layer do not satisfy this argued limitation, as set forth in claim 11, as previously amended. Specifically, such light scattering particles, which the Examiner considers as qualifying as “light conversion elements”, cannot all be fairly considered individually to “face toward the reflection polarizer”, as set forth in claim 11. Instead, absent a particular teaching in Yoshida, a random distribution and orientation of such particles is to be expected.

Furthermore, Applicants submit that “configured at one side of the diffusion plate” as set forth in claim 11, has sufficiently excluded the situation of “formed in the diffusion layer” taught by Yoshida.

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

Additionally, Applicants submit that the light scattering particles of Yoshida do not qualify the light conversion elements that “face toward the reflection polarizer to transform the reflected P polarized light thereabouts to a common light”. Regarding this subject matter, the Examiner contended that “column 9 lines 20-63 of Yoshida [which] clearly state that the reflected polarized light P from the plate is transmitted in a common direction as that of the diffused and reflected light thus inherently being ‘transformed’ to a common light”. Further, the Examiner recited a “plate” yet did not clearly indicate which element of Yoshida was concerned, the plate as the polarizing plate 20 or the diffusion layer 23.

If the Examiner were talking about the polarizing plate 20, there would be a contradiction with the statement the Examiner made addressing the position relationship of the light conversion elements and the diffusion plate, as set forth in claim 11. If the Examiner were talking about the diffusion layer, there would not any reflected polarized light P being transformed at all, since all light incident thereon would be transmitted from, instead of reflected by, the polarizing plate. Note, as set forth in claim 11, “a reflection polarizer which allows S polarized

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

light to pass while reflecting P polarized light ...”, the subsequent limitation of “reflected P polarized light” clearly directed to light that has been both reflected and polarized.

Even further, the light scattering particles of Yoshida are unable to “redirect the common light toward the reflection polarizer without substantial involvement of the diffusion plate and the light guide plate”, as set forth in claim 11. Yoshida employs such scattering particles in the diffusion plate in order to “eliminate the glittering of the screen caused by the light reflected by the front reflection polarizing plate 20” (Column 17, lines 28-30). Therefore, light functioned by the light scattering particles are directed toward viewers of the LCD device, rather than toward the reflection polarizing plate 20.

Moreover, Applicants submit that when considered as a whole the proposed modification of Kretman by Yoshida is unable to arrive at the backlight system as set forth in claim 11. Although alleged to be able to transform the P polarized light into common light, such light scattering particles of Yoshida when employed for modifying Kretman could not do any good with respect to Kretman, since the P polarized light is not transmittable by the polarizing plate. On the contrary, even might

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

diffusing the P polarized light many times and thus obtaining very uniformity, the light scattering particles of Yoshida are unable of changing polarization state of the light, i.e., changing P polarized light to S polarized light, and thus the P polarized light is locked between the diffusion layer and the polarizing plate in fact. Applicant submits that such a modification would quite likely be inoperable and useless in practice.

For at least the reasons discussed above, Applicants submit that Yoshida et al '711 cannot be used as a second reference for overcoming the shortcomings associated with Kretman and for rendering the present invention obvious.

Similarly, claim 12, as previously presented, recites in part:

A method of making a backlight system, comprising ...

positioning a diffusion plate above said light guide plate ...

forming a plurality of light conversion elements on the diffusion plate facing toward the reflection polarizer, so as to transform the reflected P polarized light ...

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

Likewise, claim 13, as previously added, recites in part:

A backlight system, comprising ...

a diffusion plate located above said light guide plate; and

a reflection polarizer which allows light polarized in one
certain direction to pass while reflecting light polarized in a
direction perpendicular to the certain direction, the
reflection polarizer being located above the diffusion plate;

wherein

the light guide plate, the diffusion plate and the reflection
polarizer are stacked one another in sequence, and light
conversion elements are configured at a surface of the
diffusion plate and face toward the reflection polarizer ...

Applicant submits that such a backlight system, and such a method
for making the same, as set forth in claims 12 and 13, respectively, are
neither taught, disclosed, nor suggested by Kretman '946, Yoshida '711 or
any of the other cited references, taken alone or in combination.

As set forth in the arguments with respect to claim 1, Kretman '946
and Yoshida '711, do not disclose or suggest a diffusion plate at all

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

(MPEP § 2143.03). Further, Kretman '946 and Yoshida '711 do not disclose or suggest light conversion elements to transform reflected P polarized light into normal light. Furthermore, Kretman '946 cannot be modified by Yoshida '711 to render the present invention *prima facie* obvious, because there would be no reasonable expectation of success (MPEP § 2143.02).

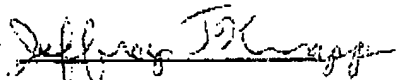
As claims 12 and 13 require similar limitations as those set forth above with respect to claim 11, Applicants submit that claims 12 and 13 are also allowable over Kretman et al '946 and Yoshida et al '711.

Accordingly, claims 11-13 are submitted to be novel, unobvious, and patentable over Kretman et al '946 and Yoshida et al '711. Reconsideration and withdrawal of the rejection and allowance of claims 11-13 are respectfully requested.

Appl. No. 10/665,995
Amdt. Dated June 2, 2006
Reply to Office Action of Apr. 19, 2006

In view of the foregoing, Applicants submit that the present application is now in condition for allowance, and an action to such effect is earnestly solicited.

Respectfully submitted,
Tai-Cheng Yu et al

By 

Jeffrey T. Knapp

Registration No.: 45,384

Foxconn International, Inc.

1650 Memorex Drive

Santa Clara, CA 95050

Tel. No.: 714/626-1229